

In the Claims

1. (Currently Amended) A method comprising:
determining energies in selected portions of far and near end signals;
selectively processing the selected portion of the near end signal using foreground adaptive coefficient filtering based on the selected portions of the far and near end signals;
selectively processing the selected portion of the near end signal using fixed coefficient filtering based on the selected portions of the far and near end signals; and
selectively transferring the selected portion of the near end signal without processing using foreground adaptive coefficient filtering and without processing using fixed coefficient filtering in response to a ratio of the selected portion of the far end energy signal over the selected portion of the near end signal energy not exceeding a predetermined value being sufficiently high.
2. (Currently Amended) The method of claim 1, wherein the selectively processing the selected portion of the near end signal using foreground adaptive coefficient filtering is based on a first condition and wherein the first condition comprises (i) energy in the selected portion of the far end signal equaling or exceeding a first threshold and (ii) energy in the selected portion of the near end signal equaling or exceeding a second threshold and (iii) a ratio of the selected portion of the far end energy signal over the selected portion of the near end signal energy exceeding a predetermined value being sufficiently high.
3. (Original) The method of claim 2, wherein the selectively processing the selected portion of the near end signal using fixed coefficient filtering is based on a second condition and wherein the second condition comprises the first condition not being met.
4. (Original) The method of claim 1, further comprising:
selectively replacing the selected portion of the near end signal with comfort noise based in part on energy in the selected portion of near end signal and energy in the

selected portion of near end signal after the transferring or prior applied processing.

5. (Original) The method of claim 1, further comprising:
selectively applying background adaptive coefficient filtering of the selected portion of the near end signal based in part on energy in the selected portion of near end signal and energy in the selected portion of near end signal after the transferring or prior applied processing; and
selectively storing coefficients of the background adaptive filtering into a shared memory based in part on energy of the selected portion of the near end signal and energy in the selected portion of the near end signal after background adaptive filtering.
6. (Original) The method of claim 5, further comprising:
selectively replacing the selected portion of the near end signal with comfort noise based in part on energy in the selected portion of the near end signal and energy in the selected portion of the near end signal after the transferring or prior applied processing.
7. (Original) The method of claim 1, further comprising incrementing a current subblock counter.
8. (Original) The method of claim 1, wherein the selected portion comprises multiple samples.
9. (Original) The method of claim 1, wherein the selectively processing the selected portion of the near end signal using foreground adaptive coefficient filtering includes processing every other subframe of the near end signal.
10. (Original) The method of claim 1, wherein the selectively applying background adaptive coefficient filtering of the selected portion of the near end signal includes processing every other subframe of the near end signal.

11. (Currently Amended) An apparatus comprising:
- an adaptive filter to selectively process a selected portion of a near end signal based on selected portions of the far and near end signals;
 - a fixed filter to selectively process the selected portion of the near end signal based on selected portions of the far and near end signals;
 - a controller to control processing of the selected portion of the near end signal;
 - a coefficient memory to store coefficients used by the fixed filter and the adaptive filter; and
 - a comfort noise generator to selectively replace the selected portion of the near end signal with comfort noise, wherein the comfort noise generator is to selectively transfer the selected portion of the near end signal without processing using foreground adaptive coefficient filtering and without processing using fixed coefficient filtering in response to a ratio of the selected portion of the far end energy signal over the selected portion of the near end signal energy not exceeding a predetermined value being sufficiently high.
12. (Canceled)
13. (Previously Presented) The apparatus of claim 11, wherein the adaptive filter comprises a background filter which comprises an adaptive coefficient finite impulse response filter.
14. (Previously Presented) The apparatus of claim 13, wherein the background filter utilizes a recursive normalized least mean square algorithm to update coefficients based on processing of the near end signal.
15. (Previously Presented) The apparatus of claim 11, wherein the adaptive filter comprises a foreground filter which comprises a fixed coefficient finite impulse response filter.
16. (Original) The apparatus of claim 11, wherein the fixed filter comprises a fixed coefficient finite impulse response filter.

17. (Original) The apparatus of claim 11, wherein the comfort noise generator is to selectively replace the selected portion of the near end signal with comfort noise based in part on energy in the selected portion of the near end signal after the transferring or prior applied processing.

18. (Original) The apparatus of claim 11, wherein the comfort noise generator is to selectively transfer the transferred or processed selected portion of the near end signal based in part on energy in the selected portion of near end signal after the transferring or prior applied processing.

19. (Original) The apparatus of claim 11, wherein the portion comprises multiple samples.

20. (Original) The apparatus of claim 11, wherein the adaptive filter is to process every other subframe of the selected portion of the near end signal.

21. (Currently Amended) A system comprising:

a speaker;

a microphone;

a signal processor comprising:

an adaptive filter to selectively process a selected portion of a near end signal based in part on energy in the near end signal and a far end signal,

a fixed filter to selectively process the selected portion of the near end signal based in part on energy in the near end signal and the far end signal,

a controller to control processing of the selected portion of the near end signal,

a coefficient memory to store coefficients used by the fixed filter and the adaptive filter, and

a comfort noise generator to selectively replace the selected portion of the near end signal with comfort noise, wherein the comfort noise generator is to

selectively transfer the selected portion of the near end signal without processing using foreground adaptive coefficient filtering and without processing using fixed coefficient filtering in response to a ratio of the selected portion of the far end energy signal over the selected portion of the near end signal energy not exceeding a predetermined value being sufficiently high; and an output device to provide the processed or transferred near end signal to the speaker.

22. (Canceled)

23. (Previously Presented) The apparatus of claim 11, wherein the adaptive filter comprises a background filter to selectively apply adaptive coefficient filtering of the selected portion of the near end signal.

24. (Previously Presented) The apparatus of claim 11, wherein the adaptive filter comprises a foreground filter to selectively apply fixed coefficient filtering of the selected portion of the near end signal and to provide the fixed coefficient filtered selected portion of the near end signal from the adaptive filter.

25. (Previously Presented) The system of claim 21, wherein the adaptive filter comprises a background filter to selectively apply adaptive coefficient filtering of the selected portion of the near end signal.

26. (Previously Presented) The system of claim 21, wherein the adaptive filter comprises a foreground filter to selectively apply fixed coefficient filtering of the selected portion of the near end signal and to provide the fixed coefficient filtered selected portion of the near end signal from the adaptive filter.